



Case Study

**Sustainable
Development Unit**

ENERGY

SOUTH CENTRAL AMBULANCE SERVICE

Using the power of the sun to help save lives

- South Central Ambulance Service covers an area of 3,554 square miles, and handles over 400,000 emergency calls each year
- Rapid Response Vehicles (RRVs) make up a crucial part of the organisation in their role of responding to emergency calls and transporting equipment and expertise to the scene using a one-member crew
- The new range of RRV has had solar panels fitted to the roof in order to provide renewable energy to power equipment within the vehicle

What was the issue being addressed?

The South Central Ambulance Service NHS Foundation Trust was looking to find ways of reducing their carbon footprint impact across the counties in which they operate.





How was the issue addressed?

South Central Ambulance Service was the first ambulance service in the country to use power from the sun to supply energy through the use of solar panels fitted on the roof of their new range of 36 RRVs.

Previously the ambulance crew either sat in their vehicle with the engine on between jobs charging up the secondary battery or they went back to an ambulance station to do it plugging into the electricity shoreline system.

From the beginning of 2012 the trust trialled a new solar panel system on a couple of their cars and it proved to be most effective. Daylight is converted into voltage by the two 34-watt solar panels with a separate C-Tec regulator located in the boot providing the power for their equipment.



These vehicles actually carry a secondary battery that is used to charge the mobile data technology, some medical equipment, blue flashing lights and radio. Some of this equipment provides the driver with details about the incident. The solar panels are used to keep this secondary battery charged.

Benefits:

1. Reduces fuel consumption
2. Reduces battery replacements
3. Reduces time of RRV going back to station for recharging
4. Reduces the need for electricity shoreline charging
5. Reduces CO2 emissions
6. Reduces time that RRV are off road
7. Increases time RRV are on the road and can attend more incidents
8. Reduces costs



Carbon and financial savings

Benefits of this technology over a year include;

- No need to replace batteries annually
- The vehicles will not be off road so often
- The fuel consumption shall be reduced
- Reducing the CO2 by 6.5t.

A further benefit is the ten-year life expectancy of the solar panels.

The total savings over 5 years are £49,572 per vehicle (the total cost for the 36-strong fleet was £34,560). The total CO2 reduction over 5 years is 30.28t.

Contact details

If you would like to learn more about this project contact:

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